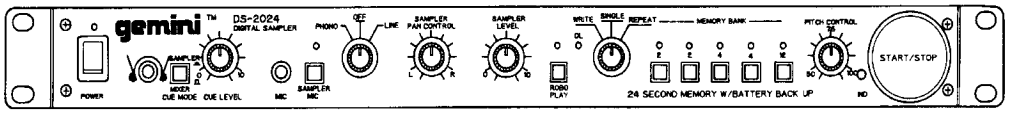
gemini™
SOUND PRODUCTS WITH SOUND IDEAS

SERVICE MANUAL

DIGITAL SAMPLER

MODEL DS-2024



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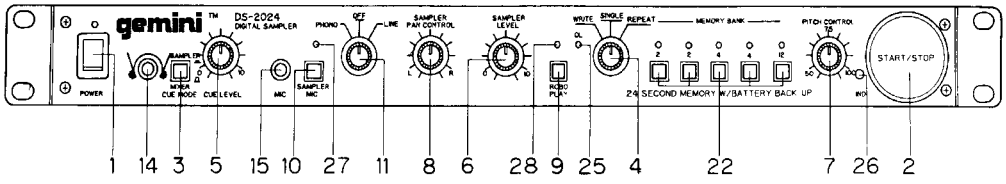
SPECIFICATIONS

Microphone Input:	1.5 mV 600 ohm
Phono Inputs:	3 mV 47 Kohms
Line Inputs:	150 mV 27 Kohms
Output:	150 mV
Headphone Monitor Impedance:	16 ohms
Sampler System:	12 Bit Sampling
Maximum Sample Length:	12 Seconds
Total Memory Capacity:	24 Seconds
Power Source:	115/230V 15W
Dimensions:	483 mm (W) x 45 mm (H) x 140 mm (D) 19" (W) x 1 3/4" (H) x 5 1/2" (D)
Approximate Weight:	5.5 lbs (2.5 kg)

CONNECTION, OPERATING AND SAMPLER INSTRUCTIONS



INSTRUCTIONS FOR CONNECTION

1. Be sure the POWER (1) switch is in the OFF position. All connections must be made with all equipment OFF.

2. For best sound, use only high quality RCA cables when hooking up equipment to the DS-2024. Make sure that all cables are pushed in securely.

3. To hook up your DS-2024 to your mixer, connect the OUTPUT LINE (17) jacks of the DS-2024 to any available line level input on your mixer.

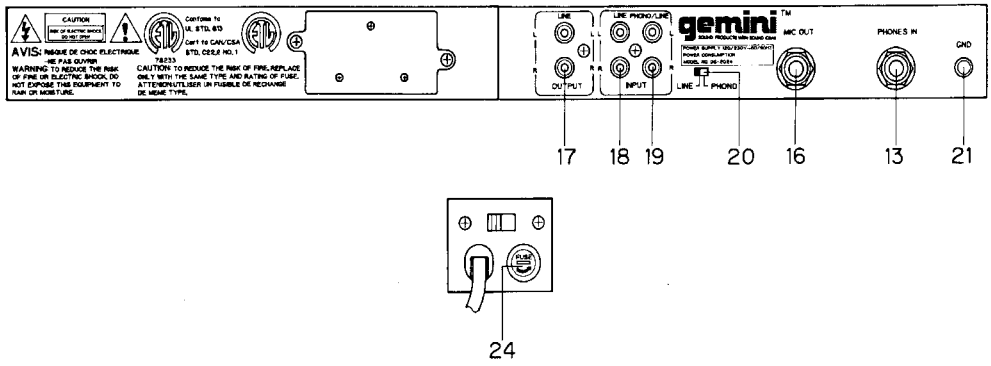
4. Plug your microphones into the MIC (15) jack on the front panel of the DS-2024.

5. Using 1/4" plugs and cables, connect the MIC OUT (16) jack on the back panel of the DS-2024 to the 1/4" mic jack on your mixer.

6. Plug your headphones into the HEADPHONE (14) jack on the front panel.

7. Using 1/4" plugs and cables and cables, connect the HEADPHONE IN (13) jack on the back panel of the DS-2024 to the 1/4" headphone jack on your mixer.

8. Tuners, cassette decks, reel to reels, video equipment, CD players and any other line level input devices may be connected to the DS-2024 by using the LINE INPUT (18) jack on the back panel. PHONO/LINE INPUT (19) on the back panel can also be used for any of these sources as long as the PHONO/LINE (20) switch, on the back panel, is in the LINE position. You may also connect a turntable instead of a line source into PHONO/LINE INPUT (19) as long as the PHONO/ LINE (20) switch on the back panel, is set to the PHONO position. If you choose to use a turntable, you must also attach the ground wire from the turntable to the GND (21) screw located on the back panel of the DS-2024.



OPERATING INSTRUCTIONS

1. Once you have made all source connections to the DS-2024 and you have made sure that the VOLTAGE SELECTOR (24) switch is in the proper position, plug the power cord into a power source and press the POWER (1) button (LED lights red).

2. The SOURCE SELECTION (11) switch determines which input source goes through the DS-2024 to the mixer. If the PHONO/LINE position is selected on the SOURCE SELECTION (11) switch, then the source connected to PHONO/LINE INPUT (19) jack on the back panel will be selected. If the LINE position is selected, then the source connected to the LINE INPUT (18) jack on the back panel will be selected. If the OFF position is selected, then the signals of inputs (18, 19) will NOT go through the unit to the mixer.

SAMPLER OPERATION

SAMPLE RECORDING

1. Select the source you want to sample from by placing the SOURCE SELECTION (11) switch in the proper position. Model DS-2024 is equipped with an OVERLOAD INDICATOR (25). If this indicator is illuminated, it means that the input signal you are going to sample is too strong and will cause a distorted sample. Lower the signal intensity on the device you have selected until the OVERLOAD INDICATOR (25) turns off.

   NOTICE: The SAMPLE MIC (10) button must be in the OFF mode. See the Mic Sampling section for making samples from the microphone.

2. Select the memory bank you want to record into by pressing the proper MEMORY BANK (22) button.

3. Tapping the START/STOP (2) button with the mode SELECTOR (4) switch in the WRITE position begins the sampling process (the SAMPLER INDICATOR (26) will illuminate RED). Tapping the START/STOP (2) button a second time ends the sample (the SAMPLER INDICATOR (26) will turn off). If you do not tap the START/STOP (2) button a second time, the sampling process will stop automatically after 2, 4 or 12 seconds, depending on which MEMORY BANK (22) was selected.

SAMPLE PLAYBACK

1. Select the memory bank you wish to play by pushing the appropriate MEMORY BANK (22) button.

2. Tapping the START/STOP (2) button with the MODE SELECTOR (4) switch in the SINGLE position will cause the sampler to playback one time (the SAMPLER INDICATOR (26) will illuminate GREEN). Every push of the START/ STOP (2) button will restart the sample from the beginning. Rapid pressing of the START/STOP (2) button will cause a stuttering effect. Once the sample has started playback and the START /STOP (2) button is not pushed a second time, the sample will play to the end and then stop (the SAMPLER INDICATOR (26) will turn off).

3. Tapping the START/STOP (2) button with the MODE SELECTOR (4) switch in the REPEAT position, will cause the sample to continually play over and over (the SAMPLER INDICATOR (26) will illuminate GREEN). The START/STOP (2) button will act as an on/off switch. The first push will start the sample, the second push will stop the sample.

MIC SAMPLING

1. To make a sample from the microphone, push the SAMPLER MIC (10) button (the MIC SAMPLE INDICATOR (27) will illuminate RED). The microphone signal will now be the only signal going to the sampler. The selected source will still play through the unit but it cannot be sampled. The microphone output is controlled by the microphone section of ypur mixer.

ROBO PLAY™

1. With the ROBO PLAY™ (9) button in the OFF position (the ROBO PLAY™ INDICATOR (28) will be off), the SOURCE SELECTOR (11) switch NOT in the OFF position and the MODE SELECTOR (4) switch in either SINGLE or REPEAT, the sample will play along with the selected source.

2. When the ROBO PLAY™ (9) button is ON (the ROBO PLAY™ INDICATOR (28) illuminates RED), starting the sampler mutes the selected source. When the sample ends, the source automatically turns back on.

SAMPLER LEVEL CONTROL

1. By adjusting the SAMPLER LEVEL (6) control, you can control the output volume of the recorded sample.

   NOTE: The SAMPLER LEVEL (6) control does not effect the volume of any source playing through the DS-2024.

PAN CONTROL

1. Placing the PAN (8) control in the center position will cause the sample playback to evenly play through the left and right channels. Turning the PAN (8) control left or right will move the playback similar to a balance control.

CUE CONTROL

1. With the CUE MODE (3) switch in the MIXER position, the cueing through the headphones is controlled by the mixer. Sampler cue is controlled by the DS-2024.

2. In the SAMPLER position, only the playback of the recorded sample comes through the headphones and the level is controlled by the CUE LEVEL (5) control.

PITCH CONTROL

1. The DS-2024 comes equipped with a PITCH (7) control. To get a perfect sample, set the control to its center position and record the sample.

2. During playback, raising or lowering the control will raise or lower the pitch of the sample playback. The center position will remain as normal pitch.

PITCH CONTROL HELPFUL HINT

You can record a sample with the PITCH (7) control set at any position. Whatever that position is now becomes normal sound. Turning the PITCH (7) will change the rate of pitch. If you start to record a sample with the PITCH (7) control set at minimum (this now becomes your normal pitch), by increasing the pitch to maximum, the pitch effect will double in speed. Recording at maximum and lowering to minimum will do exactly the opposite.

BATTERY BACKUP

The DS-2024 is equipped with battery backup to retain samples. To activate this feature, a 9 volt battery (not included) needs to be connected to the battery clip in the compartment on the back of the unit. This will enable you to store samples in memory, and when the unit is unplugged, the battery backup will retain the samples for future use. If the unit is unplugged with no battery attached, all samples will be lost.

LOW BATTERY INDICATOR

A low battery indicator is included with the DS-2024. When changing the battery, make sure the unit is plugged in and the power is ON. Failure to adhere to this will cause your memory to be lost. The low battery indicator is on when the selected memory bank LED blinks. The LED will also blink if no battery is connected to the unit.

DISASSEMBLY PROCEDURES

1. Removal of Top Case and Front Panel

(a) Removal of Top Case (Fig. 1)
Remove 7 screws (A).

(b) Removal of Front Panel (Fig. 1)
Remove 6 knobs (B).
Remove 5 socket screws (C).

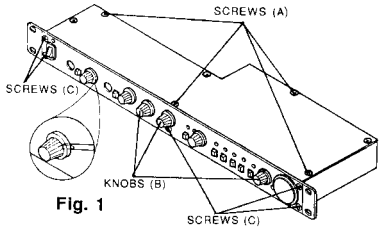


Fig. 1

2. Removal of Sampler P.C.B. and Bottom Cover.

(a) Removal Sampler P.C.B.
Remove 4 supports (D). (Fig. 2)

(b) Removal of Bottom Cover
Remove 1 screw (E). (Fig. 2)
Remove 5 screws (F). (Fig. 3)
Remove 5 screws (G). (Fig. 3)
Remove 2 screws (H). (Fig. 6)

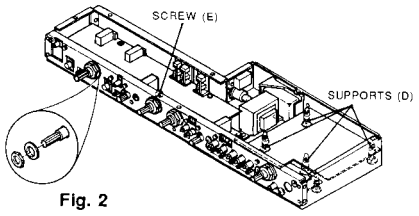


Fig. 2

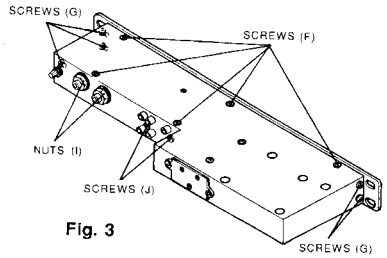


Fig. 3

3. Removal of Each P.C.B. and Transformer

(a) Removal of Main PCB.
Remove 2 nuts (I). (Fig. 3)
Remove 2 screws (J). (Fig. 3)
Remove 3 nuts (K). (Fig. 4)
Remove 2 plates (L) (Fig. 4)
Remove 2 screws (M). (Fig. 4)

(b) Removal of Sample Effect P.C.B.
Remove 1 nut (N). (Fig. 4)
Remove 2 screws (O). (Fig. 4)

(c) Removal of Bank Led P.C.B.
Remove 2 screws (P). (Fig. 4)

(d) Removal of Start/Stop P.C.B.
Remove 2 screws (O). (Fig. 4)

(e) Removal of Power Led P.C.B.
Remove 2 screws (R). (Fig. 5)

(f) Removal of Sampler Mic P.C.B.
Remove 2 screws (S). (Fig. 5)

(g) Removal of Robo Play P.C.B.
Remove 2 screws (T). (Fig. 5)

(h) Removal of Transformer.
Remove 2 screws (U). (Fig. 5)

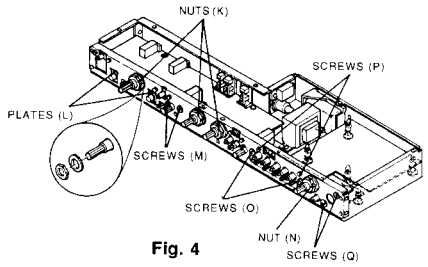


Fig. 4

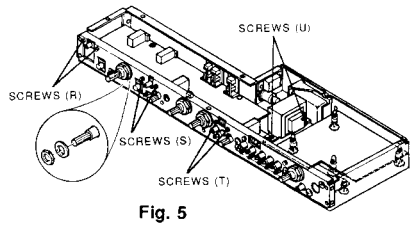


Fig. 5

4. Removal of Battery Holder

(a) Remove 2 screws (X). (Fig. 6)
(b) Remove 3 screws (Y). (Fig. 6)

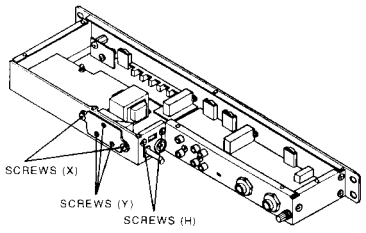
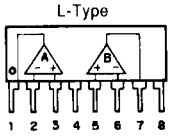


Fig. 6

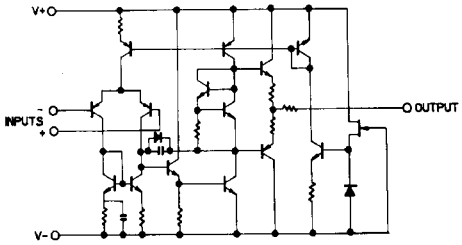
INTERNAL DIAGRAMS AND PINOUT OF INTEGRATED CIRCUITS

NJM4558

L-Type

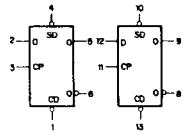


PIN FUNCTION
1. A OUTPUT
2. A- INPUT
3. A+ INPUT
4. V-
5. B+ INPUT
6. B- INPUT
7. B OUTPUT
8. V+



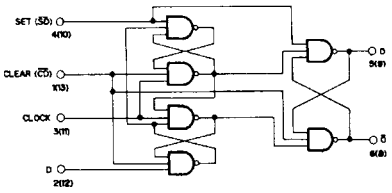
SN4/74LS74A

LOGIC SYMBOL

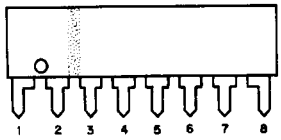


Vcc = Pin 14
GND = Pin 7

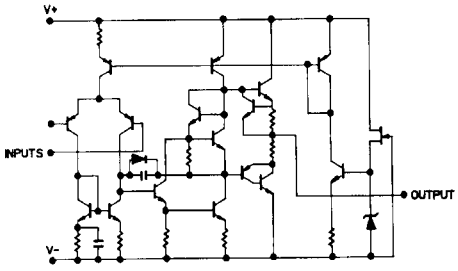
LOGIC DIAGRAM
(EACH FLIP-FLOP)



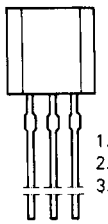
NJM4556L



PIN FUNCTION
1. A OUTPUT
2. A- INPUT
3. A+ INPUT
4. V-
5. B+ INPUT
6. B- INPUT
7. B OUTPUT
8. V+

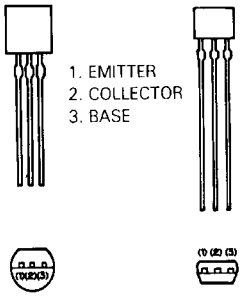


2SC2878
2SA1015
2SC1815



1. EMITTER
2. COLLECTOR
3. BASE

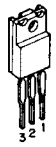
2SA1317



1. EMITTER
2. COLLECTOR
3. BASE

NJM78M00

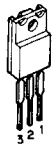
(TO-220F)



1. OUT
2. GND
3. IN

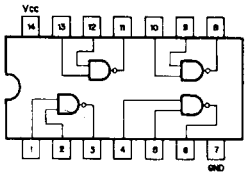
NJM79M00

(TO-220F)



1. OUT
2. IN
3. COMMON

SN4/74LS00



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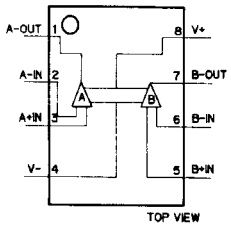

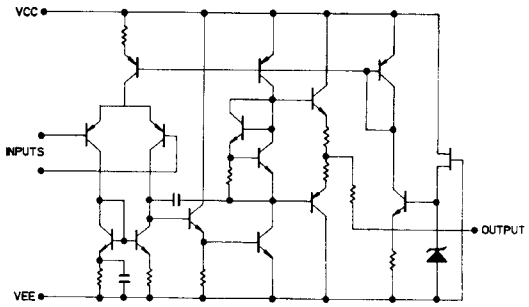

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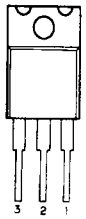
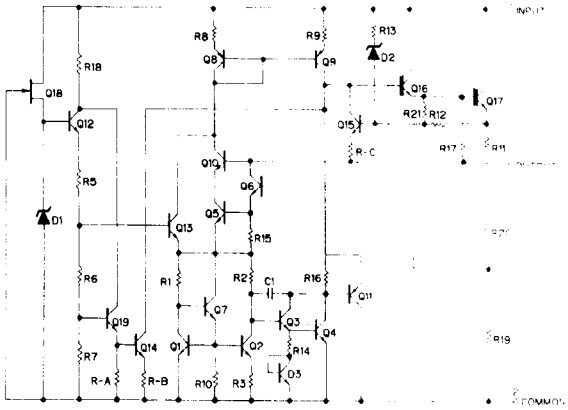


1. OUT
2. COMMON
3. IN



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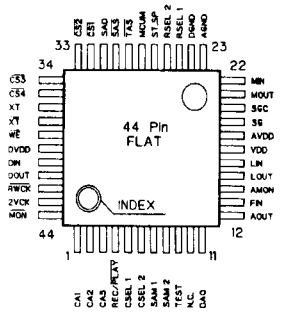

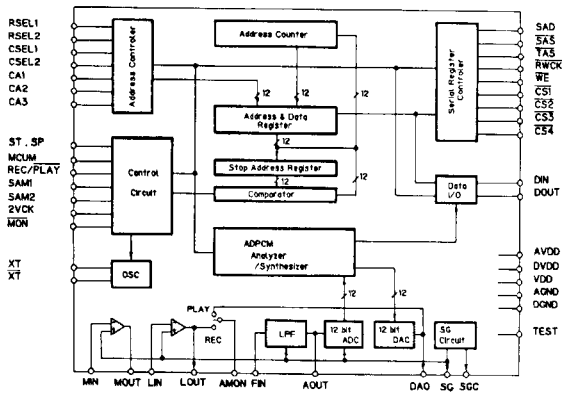

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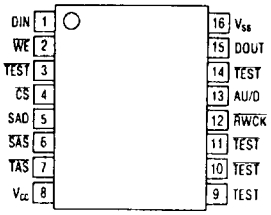
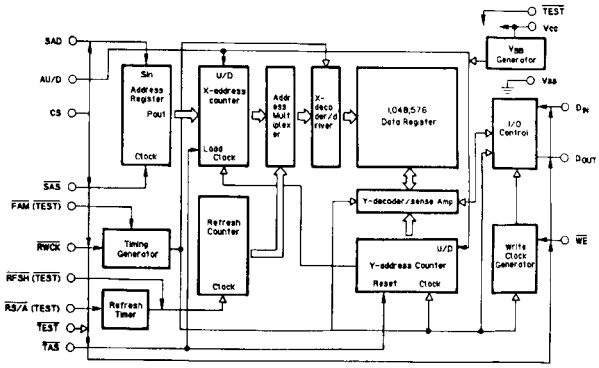
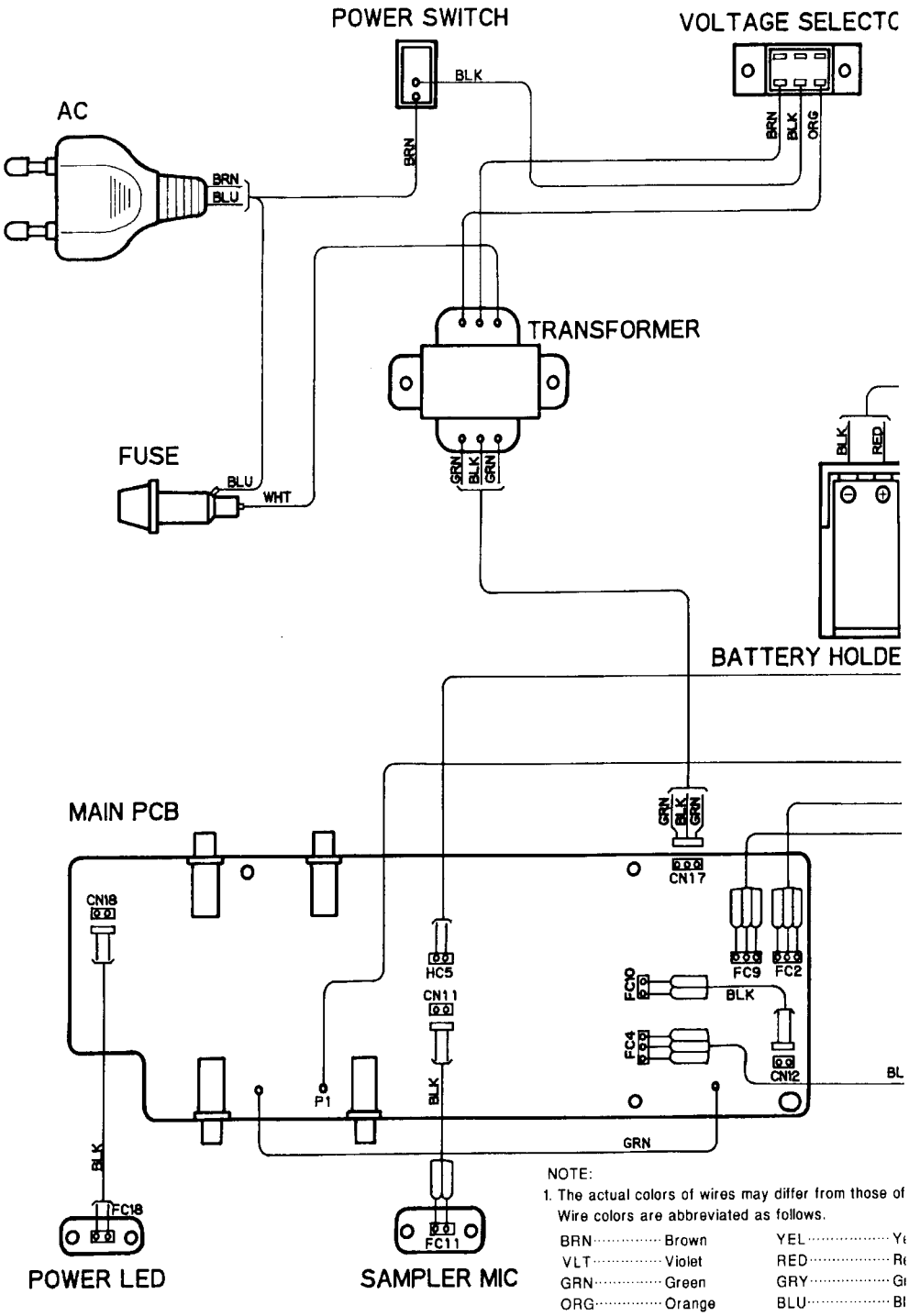




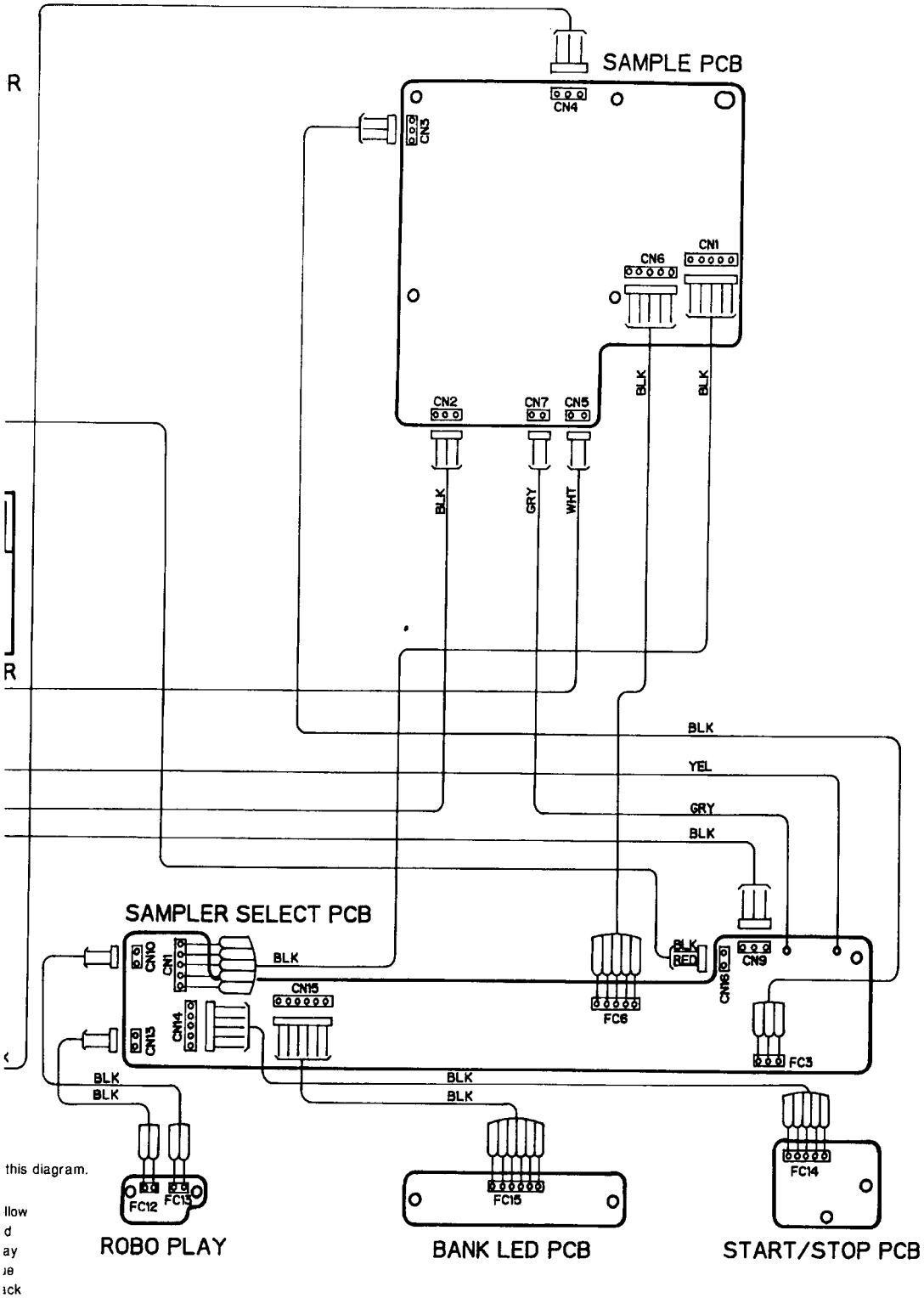
WIRING DIAGRAM



NOTE:

1. The actual colors of wires may differ from those of
   Wire colors are abbreviated as follows.

BRN	Brown	YEL	Y
VLT	Violet	RED	R
GRN	Green	GRY	G
ORG	Orange	BLU	B
WHT	White	BLK	B



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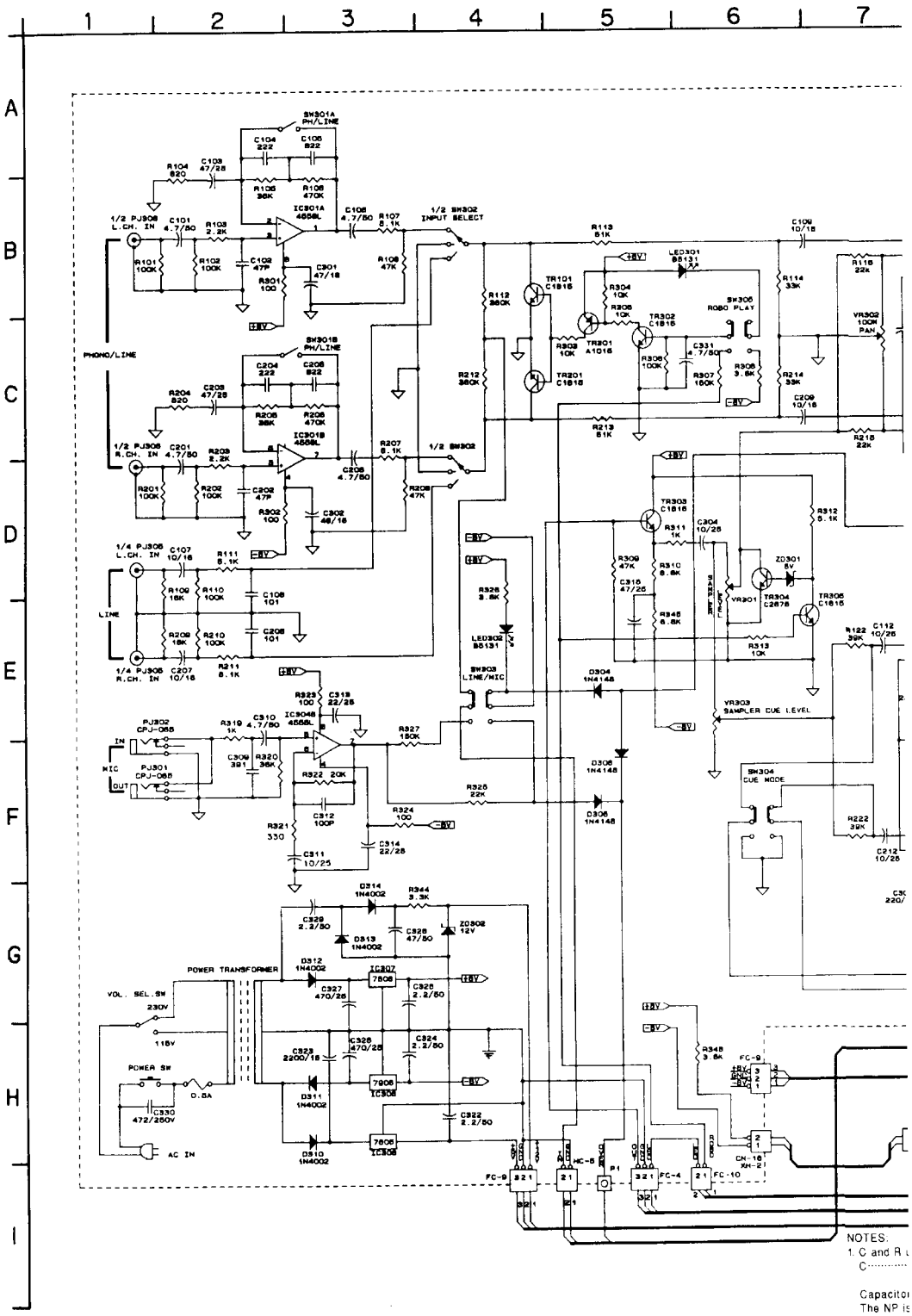
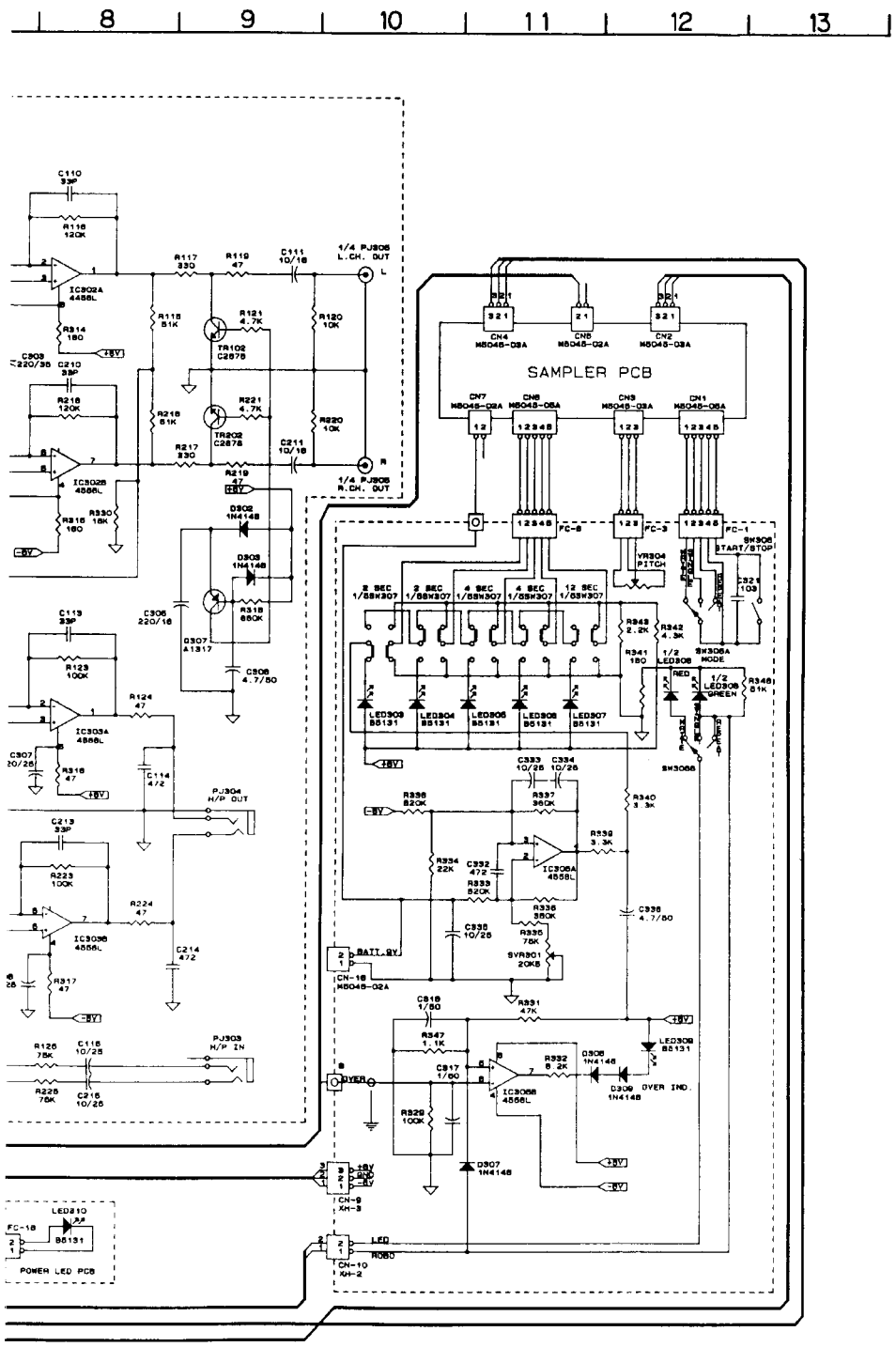
SCHEMATIC DIAGRAM



NOTES:
1. C and R
C.....
Capacitor
The NP is
R.....
Resistanc



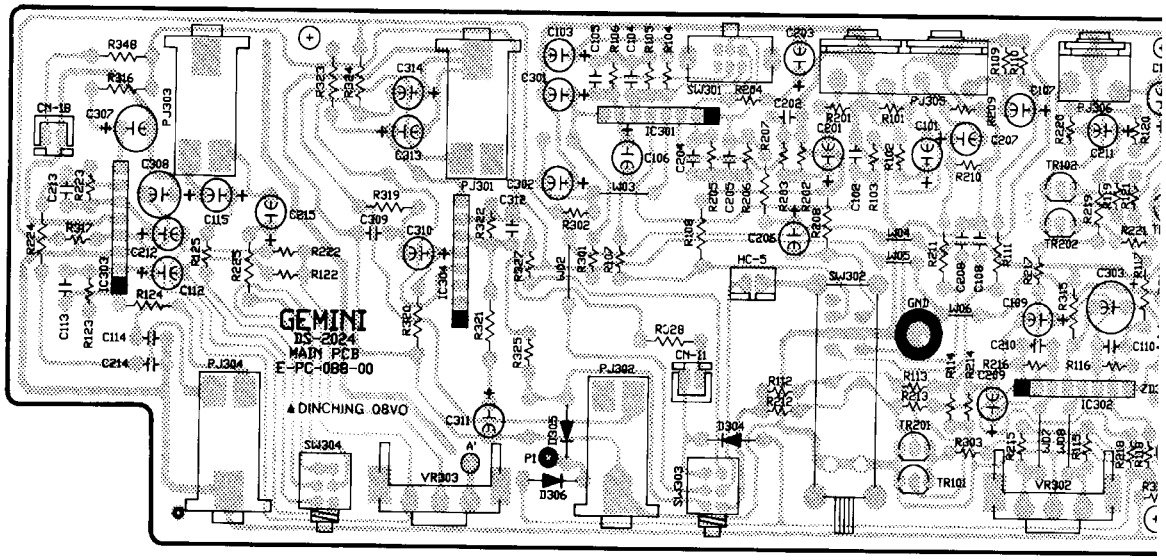
nit

·····No symbol: μF
P symbol: pF
without voltage display has work voltage of 50Volts
Nonpolar Capacitor.

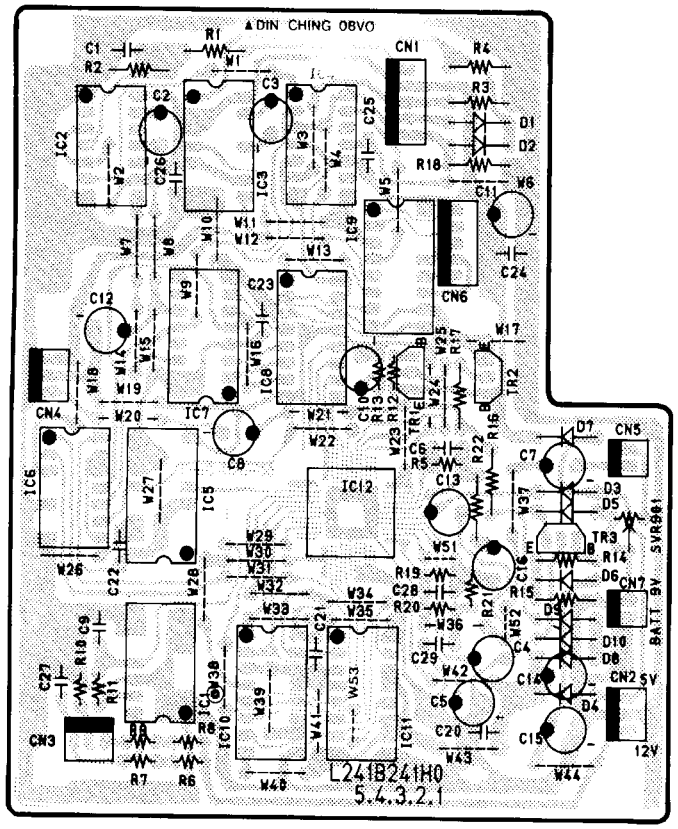
·····No symbol: Ω
K symbol: KΩ
M symbol: MΩ
e not designated is 1/4 W J (±5%)

2. Voltage for all parts are measured in terms of DC 1MΩ digital voltmeter.
3. All resistance values are in ohms, unless otherwise specified. 1K = 1000
4. All capacitance values are in farads, unless otherwise specified.
μ=10⁻⁶ P=10⁻¹²

MAIN PCB

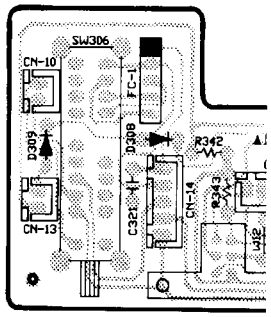


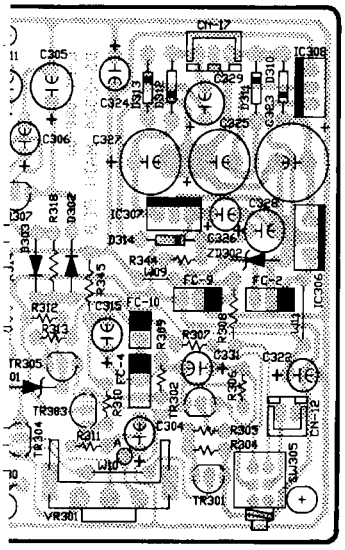
SAMPLE PCB



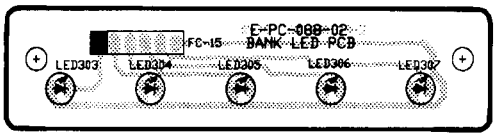
POWER LED PCB

SAMPLER SELECT PCB

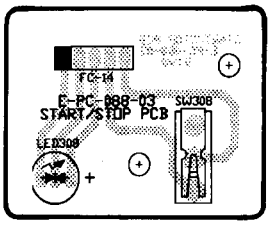




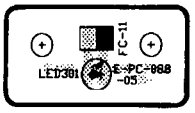
BANK LED PCB



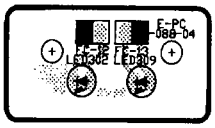
START/STOP PCB

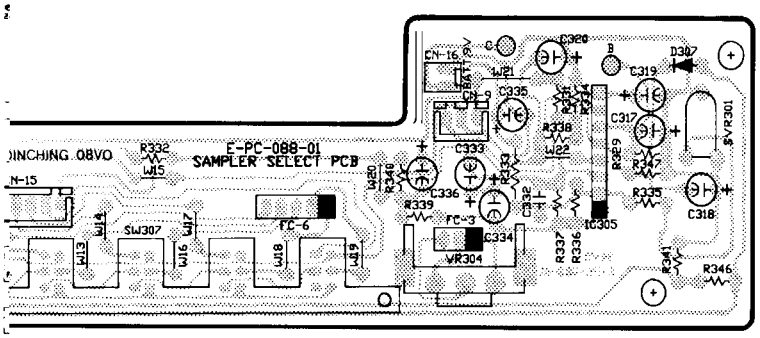


SAMPLER MIC PCB

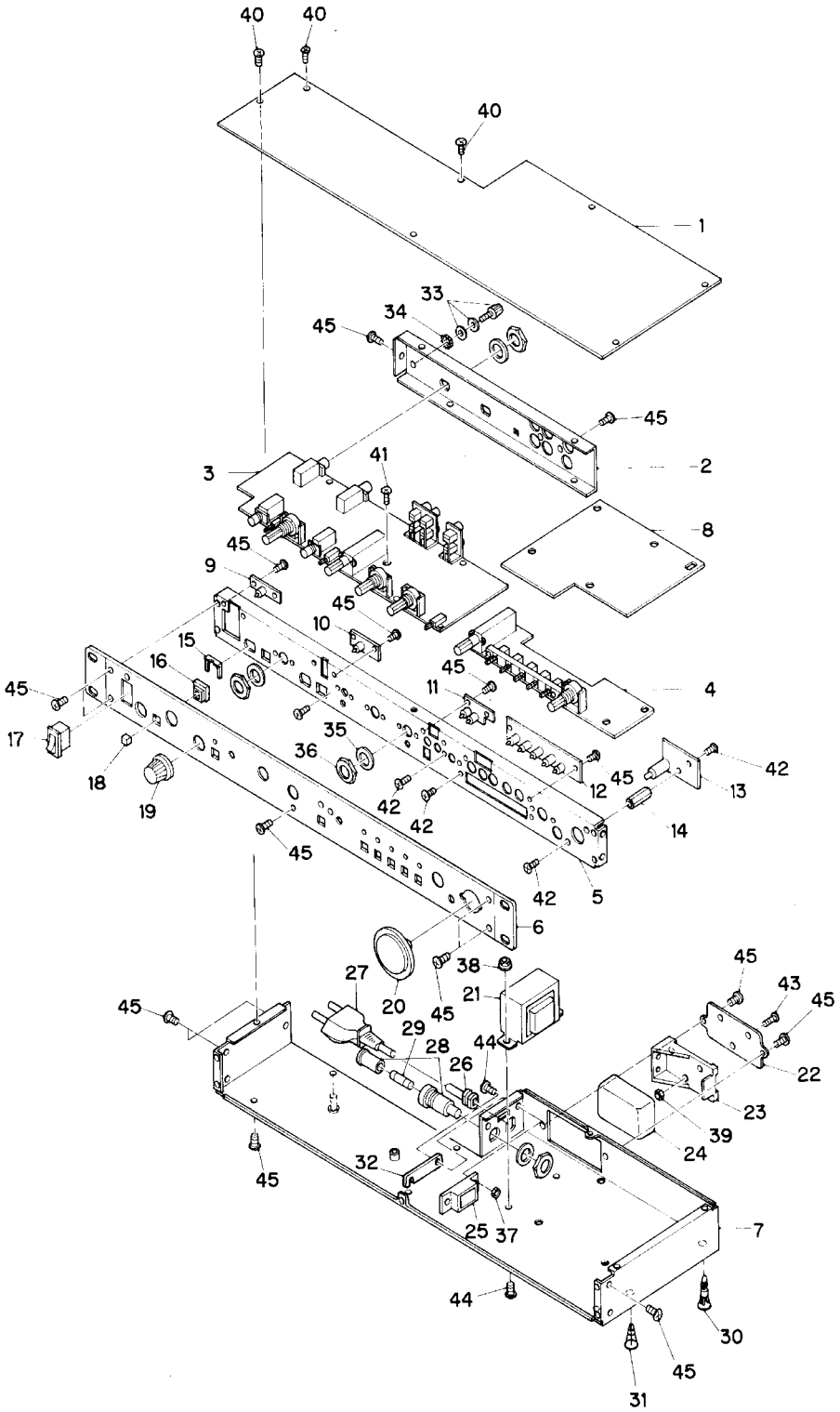


ROBO PLAY PCB





EXPLOED VIEW OF CABINET



CABINET PARTS LIST

Symbol No.	Parts No.	Description
1	F-CH-023-00	TOP COVER
2	F-CH-021-00	REAR PANEL
3	F-PC-088-00	MAIN PCB
4	F-PC-050-00	SAMPLER SELECT PCB
5	F-CH-020-00	FRONT CHASSIS
6	F-AL-031-00	FRONT PANEL
7	F-CH-022-00	MAIN CHASSIS
8	F-PC-050-00	SAMPLE PCB
9		POWER LED PCB
10		SAMPLER MIC PCB
11		ROBO PLAYER PCB
12		BANK LED PCB
13		START/STOP PCB
14	Z-NT-012-00	HEX NUT
15		HOLDER
16	P-FR-017-00	KNOB RING PS-S010
17	E-SW-008-00	SW SDDJA 1007U
18	P-KB-058-00	KNOB
19	P-KB-043-00	KNOB PT-K020
20	P-KB-057-00	KNOB PS-WOLL TRANSFORMER
21	E-PT-031-00	TRANSFORMER
22	F-CH-059-01	BATTERY COVER
23	P-XT-048-00	BATTERY HOLDER
24		BATTERY
25	E-SW-064-11	SW RS34 (M12AR)
26	P-XT-010-00	AC CORD BUSHER
27	E-WI-004-00	CORD SPT-2
28	E-FU-021-00	FUSE HOLDER
29	E-FU-001-01	FUSE 0.5A 250
30	P-XT-007-00	SPACER SUPPORTER SCB-10
31	P-XT-022-00	SPACER SUPPORTER SCB-5
32	P-WA-007-00	ORNAMENT PVC
33	Z-NT-013-00	EARTH SCREW
34	Z-WA-007-00	WASHER
35		WASHER
36		NUT
37		NUT
38	Z-NT-006-00	NUT
39	Z-NT-011-00	NUT
40	Z-NT-011-00	SCREW TAP 3X8 (B)
41	Z-SC-001-00	SCREW ISO 3X12
42	Z-SC-037-00	SCREW STP 3X4 (B)
43	Z-SC-038-00	SCREW STP 2X6
44	Z-SC-010-00	SCREW ISO 3X8 (B)
45	Z-SC-009-00	SCREW TAP 3X6 (B)

PARTS LIST

Symbol No.	Parts No.	Description
	Diodes	
D1	E-DO-004-02	DIODE IN4531 T2
D2	E-DO-004-02	DIODE IN4531 T2
D3	E-DO-004-02	DIODE IN4531 T2
D4	E-DO-004-02	DIODE IN4531 T2
D5	E-DO-004-02	DIODE IN4531 T2
D6	E-DO-004-02	DIODE IN4531 T2
D7	E-DO-003-07	DIODE IN4004 TAPING
D8	E-DO-004-02	DIODE IN4531 T2
D9	E-DO-004-02	DIODE IN4531 T2
D10	E-DO-018-00	DIODE MTZ4.7B
ZD301	E-DO-024-01	DIODE HZ5.1V
ZD302	D-DO-006-01	DIODE HZ12V
D302	E-DO-004-02	DIODE IN4531 T2
D303	E-DO-004-02	DIODE IN4531 T2
D304	E-DO-004-02	DIODE IN4531 T2
D305	E-DO-004-02	DIODE IN4531 T2
D306	E-DO-004-02	DIODE IN4531 T2
D307	E-DO-004-02	DIODE IN4531 T2
D308	E-DO-004-02	DIODE IN4531 T2
D309	E-DO-004-02	DIODE IN4531 T2
D310	E-DO-003-00T	DIODE IN4002
D311	E-DO-003-00T	DIODE IN4002
D312	E-DO-003-00T	DIODE IN4002
D313	E-DO-003-00T	DIODE IN4002
D314	E-DO-003-00T	DIODE IN4002
LD301	E-LD-009-00	LED B5131 RED
LD302	E-LD-009-00	LED B5131 RED
LD303	E-LD-009-00	LED B5131 RED
LD304	E-LD-009-00	LED B5131 RED
LD305	E-LD-009-00	LED B5131 RED
LD306	E-LD-009-00	LED B5131 RED
LD307	E-LD-009-00	LED B5131 RED
LD308	E-LD-026-00	LED BHG-204 R/G
LD309	E-LD-009-00	LED B5131 RED
LD310	E-LD-009-00	LED B5131 RED
	ICs	
IC1	E-IC-057-00	IC TC 4077BP
IC2	E-IC-051-00	IC DMLS122N
IC3	E-IC-051-00	IC DMLS122N
IC4	E-IC-052-00	IC DMLS73N
IC5	E-IC-050-00	IC DMLS193N
IC6	E-IC-048-00	IC DM74LSOON
IC7	E-IC-050-00	IC DMLS193N
IC9	E-IC-067-00	IC SN74LS148N
IC10	E-IC-047-00	MSM6889RS
IC11	E-IC-047-00	MSM6389RS
IC301	E-IC-059-00	IC NJM4558LD
IC303	E-IC-059-00	IC NJM4558LD
IC303	E-IC-059-00	IC NJM4558LD
IC304	E-IC-059-00	IC NJM4558LD
IC305	E-IC-059-00	IC NJM4558LD
IC306	E-IC-002-01	IC 7805 NJM7805
IC307	E-IC-003-01	IC 78L08 NJM78L08
IC308	E-IC-007-01	IC 79L08 NJM79L08

Symbol No.	Parts No.	Description
	Transistors	
TR1	E-TR-008-00	TR 2SA1015
TR2	E-TR-026-00	TR DTC144TS
TR3	E-TR-008-00	TR 2SA1015
TR101	E-TR-011-00	TR 2SC1815
TR102	E-TR-034-00	TR 2SC2878
TR201	E-TR-011-00	TR 2SC1815
TR202	E-TR-034-00	TR 2SC2878
TR301	E-TR-008-00	TR 2SA1015
TR302	E-TR-011-00	TR 2SC1815
TR303	E-TR-011-00	TR 2SC1815
TR304	E-TR-034-00	TR 2SC2878
TR305	E-TR-034-00	TR 2SC2878
TR307	E-TR-042-00	TR 2SA1317
	Electrical Parts	
R101	R-CB-410-10T	R-C 1/16W 100K
R102	R-CB-410-10T	R-C 1/16W 100K
R103	R-CB-222-10T	R-C 1/16W 2.2K
R104	R-CB-182-10T	R-C 1/16W 820J
R105	R-CB-336-10T	R-C 1/16W 36K
R106	R-CB-447-10T	R-C 1/16W 470K
R107	R-CB-251-10T	R-C 1/16W 5.1K
R108	R-CB-375-10T	R-C 1/16W 75K
R109	R-CB-318-10T	R-C 1/16W 18K
R110	R-CB-410-10T	R-C 1/16W 100K
R111	R-CB-251-10T	R-C 1/16W 5.1K
R112	R-CB-436-10T	R-C 1/16W 360K
R113	R-CB-410-10T	R-C 1/16W 100K
R114	R-CB-333-10T	R-C 1/16W 33K
R115	R-CB-322-10T	R-C 1/16W 22K
R116	R-CB-412-10T	R-C 1/16W 120K
R117	R-CB-133-10T	R-C 1/16W 330J
R118	R-CB-351-10T	R-C 1/16W 51K
R119	R-CB-047-10T	R-C 1/16W 47J
R120	R-CB-310-10T	R-C 1/16W 10K
R121	R-CB-247-10T	R-C 1/16W 4.7K
R122	R-CB-339-10T	R-C 1/16W 39K
R123	R-CB-410-10T	R-C 1/16W 100K
R124	R-CB-047-10T	R-C 1/16W 47J
R125	R-CB-375-10T	R-C 1/16W 75K
R126	R-CB-375-10T	R-C 1/16W 75K
R201	R-CB-410-10T	R-C 1/16W 100K
R202	R-CB-410-10T	R-C 1/16W 100K
R203	R-CB-222-10T	R-C 1/16W 2.2K
R204	R-CB-182-10T	R-C 1/16W 820J
R205	R-CB-336-10T	R-C 1/16W 36K
R206	R-CB-447-10T	R-C 1/16W 470K
R207	R-CB-251-10T	R-C 1/16W 5.1K
R208	R-CB-375-10T	R-C 1/16W 75K
R209	R-CB-318-10T	R-C 1/16W 18K
R210	R-CB-410-10T	R-C 1/16W 100K
R211	R-CB-251-10T	R-C 1/16W 5.1K
R212	R-CB-436-10T	R-C 1/16W 360K
R213	R-CB-410-10T	R-C 1/16W 100K
R214	R-CB-333-10T	R-C 1/16W 33K

Symbol No.	Parts No.	Description
R215	R-CB-322-10T	R-C 1/16W 22K
R216	R-CB-412-10T	R-C 1/16W 120K
R217	R-CB-133-10T	R-C 1/16W 330J
R218	R-CB-351-10T	R-C 1/16W 51K
R219	R-CB-047-10T	R-C 1/16W 47J
R220	R-CB-310-10T	R-C 1/16W 10K
R221	R-CB-247-10T	R-C 1/16W 4.7K
R222	R-CB-339-10T	R-C 1/16W 39K
R223	R-CB-410-10T	R-C 1/16W 100K
R224	R-CB-047-10T	R-C 1/16W 47J
R225	R-CB-375-10T	R-C 1/16W 75K
R301	R-CB-136-10T	R-C 1/16W 360J
R302	R-CB-136-10T	R-C 1/16W 360J
R303	R-CB-310-10T	R-C 1/16W 10K
R304	R-CB-310-10T	R-C 1/16W 10K
R305	R-CB-310-10T	R-C 1/16W 10K
R306	R-CB-410-10T	R-C 1/16W 100K
R307	R-CB-415-10T	R-C 1/16W 150K
R308	R-CB-236-10T	R-C 1/16W 3.6K
R309	R-CB-347-10T	R-C 1/16W 47K
R310	R-CB-268-10T	R-C 1/16W 6.8K
R311	R-CB-210-10T	R-C 1/16W 1K
R312	R-CB-251-10T	R-C 1/16W 5.1K
R313	R-CB-310-10T	R-C 1/16W 10K
R314	R-CB-118-10T	R-C 1/16W 180J
R315	R-CB-118-10T	R-C 1/16W 180J
R316	R-CB-047-10T	R-C 1/16W 47J
R317	R-CB-047-10T	R-C 1/16W 47J
R318	R-CB-468-10T	R-C 1/16W 680K
R319	R-CB-210-10T	R-C 1/16W 1K
R320	R-CB-336-10T	R-C 1/16W 36K
R321	R-CB-133-10T	R-C 1/16W 330J
R322	R-CB-322-10T	R-C 1/16W 22K
R323	R-CB-110-10T	R-C 1/16W 100J
R324	R-CB-110-10T	R-C 1/16W 100J
R325	R-CB-327-10T	R-C 1/16W 27K
R327	R-CB-415-10T	R-C 1/16W 150K
R328	R-CB-236-10T	R-C 1/16W 3.6K
R329	R-CB-410-10T	R-C 1/16W 100K
R330	R-CB-318-10T	R-C 1/16W 18K
R331	R-CB-347-10T	R-C 1/16W 47K
R332	R-CB-282-10T	R-C 1/16W 8.2K
R333	R-CB-482-10T	R-C 1/16W 820K
R334	R-CB-322-10T	R-C 1/16W 22K
R335	R-CB-375-10T	R-C 1/16W 75K
R336	R-CB-436-10T	R-C 1/16W 360K
R337	R-CB-436-10T	R-C 1/16W 360K
R338	R-CB-482-10T	R-C 1/16W 820K
R339	R-CB-233-10T	R-C 1/16W 3.3K
R340	R-CB-233-10T	R-C 1/16W 3.3K
R341	R-CB-118-10T	R-C 1/16W 180J
R342	R-CB-247-10T	R-C 1/16W 4.7K
R343	R-CB-222-10T	R-C 1/16W 2.2K
R344	R-CB-233-10T	R-C 1/16W 3.3K
R345	R-CB-268-10T	R-C 1/16W 6.8K
R346	R-CB-351-10T	R-C 1/16W 51K
R347	R-CB-210-10T	R-C 1/16W 1K
R348	R-CB-236-10T	R-C 1/16W 3.6K
C101	C-EC-247-50T	C-E 4.7U50V
C102	C-CM-047-00T	C-C 47P
C103	C-EC-047-30T	C-E 47U25V

Symbol No.	Parts No.	Description
C104	C-PL-222-00T	C-P 222J
C105	C-PL-282-00T	C-P 822J
C106	C-EC-247-50T	C-E 4.7U50V
C107	C-EC-010-30T	C-E 10U25V
C108	C-CM-110-00T	C-C 100P
C109	C-EC-010-30T	C-E 10U25V
C110	C-CM-033-00T	C-C 33P
C111	C-EC-010-30T	C-E 10U25V
C112	C-EC-010-30T	C-E 10U25V
C113	C-CM-033-00T	C-C 33P
C114	C-PL-347-00T	C-P 473J
C115	C-EC-010-30T	C-E 10U25V
C201	C-EC-247-50T	C-E 4.7U50V
C202	C-CM-047-30T	C-C 47P
C203	C-EC-047-30T	C-E 47U25V
C204	C-PL-222-00T	C-P 222J
C205	C-PL-282-00T	C-P 822J
C206	C-EC-247-50T	C-E 4.7U50V
C207	C-EC-010-30T	C-E 10U25V
C208	C-CM-110-00T	C-C 100P
C209	C-EC-010-30T	C-E 10U25V
C210	C-CM-033-00T	C-C 33P
C211	C-EC-010-30T	C-E 10U25V
C212	C-EC-010-30T	C-E 10U25V
C213	C-CM-033-00T	C-C 33P
C214	C-PL-347-00T	C-P 473J
C215	C-EC-010-30T	C-E 10U25V
C301	C-EC-047-30T	C-E 47U25V
C302	C-EC-047-30T	C-E 47U25V
C303	C-EC-122-30	C-E 220U25V
C304	C-EC-010-30T	C-E 10U25V
C305	C-EC-122-20	C-E 220U16V
C306	C-EC-247-50T	C-E 4.7U50V
C307	C-EC-122-20	C-E 220U16V
C308	C-EC-122-20	C-E 220U16V
C309	C-CM-139-00T	C-C 390P
C310	C-EC-247-50T	C-E 4.7U50V
C311	C-EC-010-30T	C-E 10U25V
C312	C-CM-110-00T	C-C 100P
C313	C-EC-022-30T	C-E 22U25V
C314	C-EC-022-30T	C-E 22U25V
C315	C-EC-047-30T	C-E 47U25V
C317	C-EC-210-50T	C-E 1U50V
C318	C-EC-210-50T	C-E 1U50V
C319	C-EC-022-30T	C-E 22U25V
C320	C-EC-022-30T	C-E 22U25V
C321	C-PL-310-00T	C-P 103J
C322	C-EC-222-50T	C-E 2.2U50V
C323	C-EC-222-20	C-E 2200U16V
C324	C-EC-222-50T	C-E 2.2U50V
C325	C-EC-147-30	C-E 470U25V
C326	C-EC-222-50T	C-E 2.2U50V
C327	C-EC-147-30	C-E 470U25V
C328	C-EC-047-50	C-E 47U50V
C329	C-EC-047-50	C-E 47U50V
C331	C-EC-247-50T	C-E 4.7U50V
C332	C-PL-247-00T	C-P 472J
C333	C-EC-010-30T	C-E 10U25V
C334	C-EC-010-30T	C-E 10U25V
C335	C-EC-010-30T	C-E 10U25V
C336	C-EC-247-50T	C-E 4.7U50V

Symbol No.	Parts No.	Description
PJ301	E-JK-023-00	H/P JACK CPJ-065
PJ302	E-JK-023-00	H/P JACK CPJ-065
PJ303	E-JK-023-00	H/P JACK CPJ-065
PJ304	E-JK-023-00	H/P JACK CPJ-065
PJ305	E-JK-021-00	RCA JACK 4P CPS-044
PJ306	E-JK-020-00	RCA JACK 2P CPS-052
VR301	E-VR-106-00	VR RK16K1120061 20KB
VR302	E-VR-108-00	VR RK16K1120135 100KW C.C
VR303	E-VR-106-00	VR RK16K1120061 20KB
VR304	E-VR-107-00	VR RK16K1120156 10KB C.C
SVR301	E-VR-008-00	SVR RH0811A20300
SW301	E-SW-039-00	SW SSSF122NA1
SW302	E-SW-088-00	SW SRRZS43N07
SW303	E-SW-086-00	SW SPUJ19H601RK
SW304	E-SW-086-00	SW SPUJ19H601RK
SW305	E-SW-086-00	SW SPUJ19H601RK
SW306	E-SW-088-00	SW SRRZS43N07
SW307	E-SW-087-00	SW SPUJ52A003
SW308	E-SW-033-00	SW MICRO DM-03S-1P
CN9	P-CN-004-01	CONNECTOR 3P XH
CN10	P-CN-003-01	CONNECTOR 2P XH
CN11	P-CN-003-01	CONNECTOR 2P XH
CN12	P-CN-003-01	CONNECTOR 2P XH
CN13	P-CN-003-01	CONNECTOR 2P XH
CN14	P-CN-007-01	CONNECTOR 5P XH
CN15	P-CN-009-01	CONNECTOR 6P XH
CN17	P-CN-004-01	CONNECTOR 3P XH

Packing		
101	K-CT-009-00	INNER CARTON
102	K-CT-009-01	OUTER CARTON
103	K-MU-020-00	INSTER MANUAL

DS-2024
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